

Annual Report

Production Sector

OMB Control No. 2060-0328
Expires 07/31/2011



Company Information

Company Name: **Marathon Oil Company**

Gas STAR Contact: **Aaron Hutchinson**

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Company Information Updated: **No**

Activities Reported

BMP1: Yes BMP2: No BMP3: Yes

Total Methane Emission Reductions Reported This Year: **312,573**

Previous Years' Activities Reported: **No**

Period Covered by Report

From: **01/01/2009**

To: **12/31/2009**

☒ I hereby certify the accuracy of the data contained in this report.

Additional Comments

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BMP1: Identify and Replace High-Bleed Pneumatic Devices

Current Year Activities

A. Facility/location identifier information:

Marlow Field, Oklahoma

B. Facility Summary

Number of devices replaced this reporting period: **4 devices**
Percent of system now equipped with low/no-bleed units: _____ %

C. Cost Summary

Estimated cost per replacement (including equipment and labor): \$ _____

D. Methane Emissions Reduction

Method Used: **Other**

Data Source: **Not Applicable**

Methane Emissions Reduction: **800 Mcf/year**

Based on manufacturer's data for low-bleed controller.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year ☐ Multi-year ☒

If Multi-year: ☒ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration (BMP 1 has a sunset period of 7 years).

Partner will report this activity annually up to allowed sunset date.

F. Total Value of Gas Saved

Value of Gas Saved: **\$ 5,600**

\$ / Mcf used: **\$ 7.00**

G. Planned Future Activities

Number of high-bleed devices to be replaced next year: _____ devices

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Previous Years' Activities

Year	Number of Devices Replaced	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of replacements (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Oklahoma, East Texas, and Piceance Assets

B. Description of PRO

Please specify the technology or practice that was implemented:

Artificial lift: install plunger lifts (10 years)

Please describe how your company implemented this PRO:

Wells are identified for artificial lift installations, and installations are conducted based on individual well economics.

C. Level of Implementation

Number of units installed: 60 units

D. Methane Emissions Reduction

Methane Emissions Reduction: **161,938 Mcf/year**

Basis for the emissions reduction estimate: **Other**

Estimates based on before and after well venting.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

☒ Multi-year

If Multi-year:

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: \$ **1,133,566**

\$ / Mcf used: \$ **7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: _____

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Wamsutter Field, WY and Piceance Field, CO

B. Description of PRO

Please specify the technology or practice that was implemented:

Convert gas pneumatic controls to instrument air (10 years)

Please describe how your company implemented this PRO:

Electric air compression was installed in order to supply compressed air for controllers instead of using compressed gas.

C. Level of Implementation

Number of units installed: 9 units

D. Methane Emissions Reduction

Methane Emissions Reduction: 3,947 Mcf/year

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

☒ Multi-year

If Multi-year:

- ☒ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: **\$ 27,629**

\$ / Mcf used: **\$ 7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: **Well pads tied in to the electric grid are evaluated on a yearly basis to identify potential conversions.**

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

All US Facilities

B. Description of PRO

Please specify the technology or practice that was implemented:

DI&M: leak detection using IR camera/optical imaging

Please describe how your company implemented this PRO:

An IR camera is shared among the assets to perform leak detections. In 2009, special care was taken to survey sites after installations and repair work.

C. Level of Implementation

Other: Not all sites were inspected in 2009, but the average facility was inspected once.

D. Methane Emissions Reduction

Methane Emissions Reduction: _____ Mcf/year

Basis for the emissions reduction estimate: **Other**

Marathon does not wish to make reduction estimates at this time.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

☒ One-year

☐ Multi-year

If Multi-year:

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: \$ _____

\$ / Mcf used: **\$ 7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: **Inspections with the IR camera will continue in 2010.**

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Wamsutter Field, WY and Oklahoma Fields

B. Description of PRO

Please specify the technology or practice that was implemented:

Increase compression capacity to reduce venting/flaring

Please describe how your company implemented this PRO:

Sites are evaluated for increased compression. Installations occur when economics are met.

C. Level of Implementation

Other: 37 wells received increased compression

D. Methane Emissions Reduction

Methane Emissions Reduction: **40,814 Mcf/year**

Basis for the emissions reduction estimate: **Other**

Estimates of reduced venting and reduction in number of blow-downs.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

☒ One-year

☐ Multi-year

If Multi-year:

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: \$ **285,698**

\$ / Mcf used: \$ **7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: _____

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Kenai Gas Field, AK

B. Description of PRO

Please specify the technology or practice that was implemented:

Install electric compressors (10 years)

Please describe how your company implemented this PRO:

Sites with access to electricity are evaluated for electric motors, pumps, and compressors.

C. Level of Implementation

Number of units installed: 1 units

D. Methane Emissions Reduction

Methane Emissions Reduction: **298 Mcf/year**

Basis for the emissions reduction estimate: **Other**

Estimate based off of previous year fuel use for replaced compressor

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

☒ Multi-year

If Multi-year:

- ☒ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: **\$ 2,086**

\$ / Mcf used: **\$ 7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: _____

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Bakken field, ND

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)

Please describe how your company implemented this PRO:

Green Completions - tie in sales line prior to well completion, allowing for immediate routing of gas to sales line and eliminating well venting.

C. Level of Implementation

Frequency of activity or practice: 39 times/year

D. Methane Emissions Reduction

Methane Emissions Reduction: **91,585 Mcf/year**

Basis for the emissions reduction estimate: **Other**

Estimated on average well venting times the number of green completions.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

☒ One-year

☐ Multi-year

If Multi-year:

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: **\$ 641,095**

\$ / Mcf used: **\$ 7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: **As drilling continues in Bakken, green completions will continue to be installed.**

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Kenai gas field, AK

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)

Please describe how your company implemented this PRO:

EXCAPE completions (multi-zone completion) - allows for the completion of multiple zones without removing equipment from the well bore and the associated well venting.

C. Level of Implementation

Frequency of activity or practice: 4 times/year

D. Methane Emissions Reduction

Methane Emissions Reduction: **13,191 Mcf/year**

Basis for the emissions reduction estimate: **Other**

Estimate of traditional completions time minus actual completions time times estimated well vent rate.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

☒ One-year

☐ Multi-year

If Multi-year:

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

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F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ _____

G. Total Value of Gas Saved

Value of Gas Saved: \$ **92,337**

\$ / Mcf used: \$ **7.00**

H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: _____

Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

* Total cost of practice/activity (including equipment and labor)

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Additional Accomplishments